

WHAT IS CLAIMED IS

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1. A multiplexing apparatus, comprising:
a time division switch that multiplexes
data inputted and outputs the multiplexed data to a
selected circuit, and

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a memory unit that stores real control
data for controlling actual connection operations of
the time division switch, and virtual control data
for controlling virtual connection operations.

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2. The multiplexing apparatus as claimed
in claim 1, wherein the memory unit comprises:

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first control data for controlling
connection operations of the time division switch
when multiplexing the data inputted,

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second control data for controlling
connection operations of the time division switch
when outputting the multiplexed data, and

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virtual control data for virtually
connecting the first control data and the second
control data.

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3. The multiplexing apparatus as claimed
in claim 1, wherein the memory unit assigns an
address to every terminal unit that provides data
and every circuit that outputs the multiplexed data,
and assigns a virtual address for virtually

connecting the address of the terminal unit and the address of the circuit.

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4. The multiplexing apparatus as claimed in claim 3, wherein the memory unit assigns an address to a virtual transmission path that
10 virtually connects a terminal unit and a circuit when setting up connection operations of the time division switch.

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5. The multiplexing apparatus as claimed in claim 1, wherein the memory unit detects real control data that is virtually connected by using
20 the virtual control data when controlling connection operations of the time division switch.

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6. The multiplexing apparatus as claimed in claim 1, further comprising means for providing the real control data and the virtual control data.

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7. A multiplexing method, comprising:
a step of setting real control data, the
35 real control data being for controlling actual connection operations of a time division switch that multiplexes inputted data and outputs the

multiplexed data to a selected circuit,

a step of setting virtual control data,
the virtual control data being for controlling
virtual connection operations of the time division
5 switch,

a step of virtually connecting the real
control data and the virtual control data, and

a step of detecting the real control data
connected by deleting the virtual control data.

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8. A multiplexing method, comprising:

15 an address assigning step of assigning
addresses to each terminal unit that supplies data
and to each circuit that outputs multiplexed data,

a virtual address assigning step of
assigning a virtual address that virtually connects
20 the address of the terminal unit and the address of
the circuit,

a virtual connection step of virtually
connecting the address of the terminal unit and the
address of the circuit using the virtual address,
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an address detecting step of detecting the
address of the terminal unit and the address of the
circuit, both having been connected, by deleting the
virtual address.

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9. A network, comprising a multiplexing
35 apparatus which includes:

a time division switch that multiplexes
data inputted and outputs the multiplexed data to a

selected circuit, and

a memory unit which stores therein real control data for controlling actual connection operations of the time division switch, and virtual control data for controlling virtual connection operations.

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10. The network as claimed in claim 9, wherein the memory unit comprises:

first control data for controlling connection operations of the time division switch when multiplexing data inputted,

second control data for controlling connection operations of the time division switch when outputting the multiplexed data, and

virtual control data for virtually connecting the first control data and the second control data.

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11. The network as claimed in claim 9, wherein the memory unit assigns an address to each terminal unit that provides data and every circuit that outputs the multiplexed data, and assigns an address to a virtual transmission path that virtually connects the address of the terminal unit and the address of the circuit.

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